

SEQUENCE LISTING

<110> KOBAYASHI, NORIHIRO
 GODA, YASUHIRO
 HIROBE, MASATO

<120> PROTEIN CAPABLE OF BINDING PLASTICIZER

<130> 64312(46590)

<140> 10/553,305

<141> 2005-10-14

<150> PCT/JP04/005250

<151> 2004-04-13

<150> JP 2003-110877

<151> 2003-04-15

<160> 34

<170> PatentIn version 3.3

<210> 1

<211> 363

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)..(363)

<400> 1

gag	gtg	cat	ctg	gtg	gag	tct	ggg	gga	gac	tta	gtg	agg	cct	gga	ggg	48
Glu	Val	His	Leu	Val	Glu	Ser	Gly	Gly	Asp	Leu	Val	Arg	Pro	Gly	Gly	
1				5					10					15		

tcc	ctg	aaa	ctc	tcc	tgt	gca	gcc	tct	gga	ttc	act	ttc	gga	agt	tat	96
Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Gly	Ser	Tyr	
			20					25					30			

ggc	atg	tct	tgg	gtt	cgc	cag	act	gca	gac	aag	agg	ctg	gag	tgg	gtc	144
Gly	Met	Ser	Trp	Val	Arg	Gln	Thr	Ala	Asp	Lys	Arg	Leu	Glu	Trp	Val	
		35					40						45			

gca	acc	att	tat	agt	ggt	ggt	ttt	tac	acc	tac	tat	cca	gac	agt	gtg	192
Ala	Thr	Ile	Tyr	Ser	Gly	Gly	Phe	Tyr	Thr	Tyr	Tyr	Pro	Asp	Ser	Val	
	50					55						60				

agg	gga	cga	ttc	acc	atc	tcc	aga	gac	aat	gtc	aag	gaa	atc	gtg	tat	240
Arg	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Val	Lys	Glu	Ile	Val	Tyr	
65					70				75				80			

ctg	caa	atg	agc	agt	ctg	aag	tct	gag	gac	aca	gcc	atg	tat	tac	tgt	288
Leu	Gln	Met	Ser	Ser	Leu	Lys	Ser	Glu	Asp	Thr	Ala	Met	Tyr	Tyr	Cys	
					85				90					95		

gca aga cgg acg gta gta tct acg gac tat act ttg gac tac tgg ggt 336
 Ala Arg Arg Thr Val Val Ser Thr Asp Tyr Thr Leu Asp Tyr Trp Gly
 100 105 110

caa gga acc tca gtc atc gtc tcc tca 363
 Gln Gly Thr Ser Val Ile Val Ser Ser
 115 120

<210> 2
 <211> 121
 <212> PRT
 <213> Mus musculus

<400> 2
 Glu Val His Leu Val Glu Ser Gly Gly Asp Leu Val Arg Pro Gly Gly
 1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Ser Tyr
 20 25 30

Gly Met Ser Trp Val Arg Gln Thr Ala Asp Lys Arg Leu Glu Trp Val
 35 40 45

Ala Thr Ile Tyr Ser Gly Gly Phe Tyr Thr Tyr Tyr Pro Asp Ser Val
 50 55 60

Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Val Lys Glu Ile Val Tyr
 65 70 75 80

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg Arg Thr Val Val Ser Thr Asp Tyr Thr Leu Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Ser Val Ile Val Ser Ser
 115 120

<210> 3
 <211> 318
 <212> DNA
 <213> Mus musculus

<220>
 <221> CDS
 <222> (1) .. (318)

<400> 3

gat atc cag ata aca cag att aca tcc tcc ctg gct gcc tct ctg gga 48
 Asp Ile Gln Ile Thr Gln Ile Thr Ser Ser Leu Ala Ala Ser Leu Gly
 1 5 10 15

gac aga gtc acc atc agt tgc cgg cca agt cag gac atc agc aat ttt 96
 Asp Arg Val Thr Ile Ser Cys Arg Pro Ser Gln Asp Ile Ser Asn Phe
 20 25 30

tta aac tgg ttt cag cag aaa cca gat gga act gtt gaa gtc ctg atc 144
 Leu Asn Trp Phe Gln Gln Lys Pro Asp Gly Thr Val Glu Val Leu Ile
 35 40 45

tgc tac aca tta aga atg cac tta gga gtc cca tca acg ttc agt ggc 192
 Cys Tyr Thr Leu Arg Met His Leu Gly Val Pro Ser Thr Phe Ser Gly
 50 55 60

tgt gtg tct gga aca tat tat act ctc acc agt agc aac ctg gaa caa 240
 Cys Val Ser Gly Thr Tyr Tyr Thr Leu Thr Ser Ser Asn Leu Glu Gln
 65 70 75 80

gaa gat ata gac act tcc ttt gcc att agg att ata cgc gtg ctc acg 288
 Glu Asp Ile Asp Thr Ser Phe Ala Ile Arg Ile Ile Arg Val Leu Thr
 85 90 95

gtc ggt gca ggg acc acg ctg gag ctg aaa 318
 Val Gly Ala Gly Thr Thr Leu Glu Leu Lys
 100 105

<210> 4

<211> 106

<212> PRT

<213> Mus musculus

<400> 4

Asp Ile Gln Ile Thr Gln Ile Thr Ser Ser Leu Ala Ala Ser Leu Gly
 1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Pro Ser Gln Asp Ile Ser Asn Phe
 20 25 30

Leu Asn Trp Phe Gln Gln Lys Pro Asp Gly Thr Val Glu Val Leu Ile
 35 40 45

Cys Tyr Thr Leu Arg Met His Leu Gly Val Pro Ser Thr Phe Ser Gly
 50 55 60

Cys Val Ser Gly Thr Tyr Tyr Thr Leu Thr Ser Ser Asn Leu Glu Gln
 65 70 75 80

Glu Asp Ile Asp Thr Ser Phe Ala Ile Arg Ile Ile Arg Val Leu Thr
 85 90 95

Val Gly Ala Gly Thr Thr Leu Glu Leu Lys
 100 105

<210> 5
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 linker

<400> 5
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 6
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 linker

<400> 6
 Gly Ser Thr Ser Gly Ser Gly Lys Ser Ser Glu Gly Lys Gly
 1 5 10

<210> 7
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 linker

<400> 7
 Gly Ser Thr Ser Gly Ser Gly Lys Ser Ser Glu Gly Ser Gly Ser Thr
 1 5 10 15

Lys Gly

<210> 8
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic linker

<400> 8

Gly Ser Thr Ser Gly Lys Pro Ser Glu Gly Lys Gly
1 5 10

<210> 9

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic linker

<400> 9

Gly Ser Thr Ser Gly Ser Gly Lys Pro Gly Ser Gly Glu Gly Ser Thr
1 5 10 15

Lys Gly

<210> 10

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 10

gcttgccggg tgggccac

18

<210> 11

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 11

acactgctgg acagggat

18

<210> 12

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 12

ggatcccggg agtaccctt gaccaggc

28

<210> 13

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 13

ggtgaagctc ttgacaat

18

<210> 14

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 14

ggatcccggg tggatggtgg gaagatg

27

<210> 15

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<220>

<221> modified_base

<222> (24)

<223> inosine

<220>

<221> modified_base

<222> (25)

<223> inosine

<220>

<221> modified_base

<222> (29)

<223> inosine

<220>
 <221> modified_base
 <222> (30)
 <223> inosine

<220>
 <221> modified_base
 <222> (34)
 <223> inosine

<220>
 <221> modified_base
 <222> (35)
 <223> inosine

<400> 15
 ggccacgcgt cgactagtac gggnnngggnn gggnnng

36

<210> 16
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 16
 ggccacgcgt cgactagtac

20

<210> 17
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 17
 actagtgcgac atggtrtccw casctcagtt ccttg

35

<210> 18
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 18
 ggaaacagct atgaccatg

19

<210> 19
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 19
 gtaaaacgac ggccagt

17

<210> 20
 <211> 58
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 20
 attgttatta ctgcggtccc aaccggccat ggccgaggtg catctggtgg agtctggg

58

<210> 21
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 21
 ccgccggatc cacctccgcc tgaaccgcct ccacctgagg agacgatgac tgaggttcc

59

<210> 22
 <211> 56
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 22
 caggcggagg tggatccggc ggtggcggat cggatatcca gataacacag attaca

56

<210> 23
 <211> 67
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 23

gctcaacttt cttgtcgact ttatcatcat catctttata atctttcagc tccagcgtgg 60
tccctgc 67

<210> 24

<211> 348

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)..(348)

<400> 24

gat gta caa ctt cag gag tca gga cct ggc ctc gtg aaa cct tct gag 48
Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

tct ctg tct ctc acc tgt tct gtc act ggc tac tcc atc acc agt ggt 96
Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly
20 25 30

tat tac tgg aat tgg atc cgg caa ttt cca gga aac aaa ctg gat tgg 144
Tyr Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Asp Trp
35 40 45

atg ggc cat ata agt tac gac ggt aac aat aac tac aac cca tct ctc 192
Met Gly His Ile Ser Tyr Asp Gly Asn Asn Asn Tyr Asn Pro Ser Leu
50 55 60

aaa aat cga atc tcc atc act cgt gac aca tct aag aac cag ttt ttc 240
Lys Asn Arg Ile Ser Ile Thr Arg Asp Thr Ser Lys Asn Gln Phe Phe
65 70 75 80

ctg aag ttg aat tct gtg act act gag gac aca gat aca tat tac tgt 288
Leu Lys Leu Asn Ser Val Thr Thr Glu Asp Thr Asp Thr Tyr Tyr Cys
85 90 95

tct atg atc ctc tat ggt atg gac tac tgg ggt cag gga acc tca gtc 336
Ser Met Ile Leu Tyr Gly Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

acc gtc tcc tca 348
Thr Val Ser Ser
115

<210> 25

<211> 116

<212> PRT

<213> Mus musculus

<400> 25

Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly
 20 25 30

Tyr Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Asp Trp
 35 40 45

Met Gly His Ile Ser Tyr Asp Gly Asn Asn Asn Tyr Asn Pro Ser Leu
 50 55 60

Lys Asn Arg Ile Ser Ile Thr Arg Asp Thr Ser Lys Asn Gln Phe Phe
 65 70 75 80

Leu Lys Leu Asn Ser Val Thr Thr Glu Asp Thr Asp Thr Tyr Tyr Cys
 85 90 95

Ser Met Ile Leu Tyr Gly Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
 100 105 110

Thr Val Ser Ser
 115

<210> 26

<211> 324

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)..(324)

<400> 26

cag att gtt ctc acc cag tct cca gca atc atg tct gca tct cta ggg 48
 Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
 1 5 10 15

gaa cgg gtc acc atg acc tgc act gcc agc tca agt gta agt tcc agt 96
 Glu Arg Val Thr Met Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Ser
 20 25 30

tac ttg cac tgg tac cag cag aag cca gga tcc tcc ccc aaa ctc tgc 144
 Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Leu Cys
 35 40 45

att tat agc aca tcc aac ctg gct tct gga gtc cca act cgc ttc agt 192
 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Thr Arg Phe Ser
 50 55 60

ggc agt ggg tct ggg acc tct tac tct ctc aca ata agc agc atg gag 240
 Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
 65 70 75 80

gct gaa gat gct gcc act tat tac tgc cac cag tat cat cgt tcc cca 288
 Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Tyr His Arg Ser Pro
 85 90 95

ccc acg ttc ggc tcg ggg aca aag ttg gaa ata aaa 324
 Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 27

<211> 108

<212> PRT

<213> Mus musculus

<400> 27

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
 1 5 10 15

Glu Arg Val Thr Met Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Ser
 20 25 30

Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Leu Cys
 35 40 45

Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Thr Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
 65 70 75 80

Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Tyr His Arg Ser Pro
 85 90 95

Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 28

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 28

gctggccggg tgggcaac

18

<210> 29

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 29

actagtcgac atggatttwc aggtgcagat twtcagcttc

40

<210> 30

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 30

attgttatta ctgcgggcc aaccggccat ggccgatgta caacttcagg agtcaggacc

60

<210> 31

<211> 61

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 31

ccgccggatc cacctccgcc tgaaccgcct ccacctgagg agacgggtgac tgagggtccc

60

t

61

<210> 32

<211> 55

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 32
caggcggagg tggatccggc ggtggcggat cgcagattgt tctcaccag tctcc 55

<210> 33
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 33
gctcaacttt cttgtcgact ttatcatcat catctttata atcttttatt tccaactttg 60
tccccg 66

<210> 34
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
linker

<400> 34
Gly Gly Gly Gly Ser
1 5